

Appl. No.: 09/697,645
Amdt. dated 11/22/2004
Reply to Office action of 08/24/2004

REMARKS/ARGUMENTS

Applicants appreciate the thorough review of the present application as evidenced by the Official Action. The Official Action has rejected Claims 1, 2, 4-15, 17-28, and 30-39 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,418,413 to DeMarcken et al. in view of U.S. Patent No. 5,978,770 to Waytena et al.

As explained more fully below, independent Claims 1, 14, and 27, as well as their respective dependent claims, are patentably distinguishable from the cited references. Independent Claims 8, 21, and 34 have been amended to further clarify and patentably distinguish the claims, as well as their respective dependent claims, from the cited references. In light of the claim amendments and subsequent remarks, Applicants respectfully request reconsideration and allowance of the claims.

A. The Rejection of Claims 1, 14, and 27 under 35 U.S.C. § 103(a) is Overcome

The Official Action rejected Claims 1, 14, and 27 under 35 U.S.C. § 103(a) as being unpatentable over the DeMarcken '413 patent in view of the Waytena '770 patent. Based upon the comments regarding independent Claims 1, 14, and 27 below, Applicants respectfully traverse the rejection of Claims 1, 14, and 27 under 35 U.S.C. § 103(a).

The DeMarcken '413 patent describes a travel planning system that can receive travel requests, such as flight travel requests, and produce a set of flights that can satisfy the request. The system also includes an availability predictor that is used to determine the availability of seats on a particular flight of a particular airline. See Col. 3, lines 40-50 and Col. 4, lines 9-14 and 62-67. The availability predictor may include a database that stores previous availability queries and answers that were obtained by the availability predictor, or other sources, when the availability predictor could not trust or provide a prediction and, thus, issued an actual availability query. See Col. 5, lines 10-18. In response to a query, the availability predictor produces either a prediction for the answer of the query or an actual answer depending upon whether the availability predictor retrieves an answer from the database or the actual availability system. See Col. 6, lines 52-57 and Col. 7, lines 16-46.

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The availability predictor of the DeMarcken '413 patent may also include a threshold predictor to determine whether a stored query is stale. See Col. 7, lines 52-62. For example, for every airline/booking-code/days-before-departure entry in a table, there may be an associated number of hours after which a database answer will be considered stale. See Col. 8, lines 3-16. The availability predictor may return a not available/available answer to a query, or it may return a probability estimate. For example, if the last few months of availability queries for AA flight 66 that were sent 3 days in advance of travel and had a booking code Q were available 80 percent of the time, then 0.8 could be stored in a table under the stated criteria. Thus, when the availability predictor received a query regarding AA flight 66, 3 days in advance of travel and with a booking code Q, the availability predictor could return an answer that there is an 80 percent chance that a seat on the associated flight will be available to the buyer without actually having checked the current availability. See Col. 8, lines 58-62. The DeMarcken '413 patent, therefore, provides a user with a prediction of only the current availability for a flight that satisfies the user request and, if the prediction is not acceptable, such as in instances in which the prediction is stale, then the actual current availability is obtained and provided to the user. As noted by the Official Action, the DeMarcken '413 patent does not disclose that the prediction takes into account what will remain available for booking a period of time in the future.

The Waytena '770 patent discloses a system and method for assigning and managing patron reservations, such as patrons in an amusement park. Using a personal communication device (PCD), each patron may submit a reservation request to an attraction computer through a wireless communication network. See Col. 2, lines 49-55. A plurality of attraction computers may be in communication with any number of patrons, and a central attraction control interface has access to all attractions computers to monitor or update information in each attraction computer. See Fig. 1; Col. 6, lines 16-30. The attraction computer determines whether the reservation can be accommodated by accessing a virtual queue, a physical queue, and attraction information. See Col. 12, lines 40-45. Attraction information corresponds to information describing the attraction, such as the attraction's capacity, height and weight requirements of the patron, hours of operation, etc. (See Col. 6, lines 22-30), while the physical queue keeps track of how many people are actually in line waiting for admission to an attraction. See Col. 5, lines 40-

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45. The virtual queue maintains a list of pending and confirmed reservations for the attraction, where each reservation has data identifying or describing a particular patron and either a time or position for the reservation. See Col. 10, lines 11-15. If the patron's proposed reservation request may be accommodated, the attraction computer submits a proposed reservation time to the patron, which the patron may or may not confirm. See Col. 12, line 66 – Col. 13, line 2. When the reservation is confirmed, the reservation is entered in the virtual queue for the patron. See Col. 3, lines 20-23. The attraction computer may send a message to the patron's PCD to inform of changes in reservation times or that the reserved time is approaching. See Col. 3, lines 30-40. The patron may then return at the reservation time to access the attraction without having to wait through the physical line.

It is initially submitted that the DeMarcken '413 patent cannot properly be combined with the Waytena '770 patent. "Any analogous or pertinent prior art plays a role in the determination of the patentability of the claims at the time of invention." *Beckson Marine, Inc. v. NFM, Inc.*, 292 F.3d 718, 726 (Fed. Cir. 2002). A prior art reference is analogous if the reference is in the field of applicant's endeavor or, if not, the reference is reasonably pertinent to the particular problem with which the inventor was concerned. *MPEP* § 2141.01(a) and § 2145; *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992). Furthermore, in order to properly combine references, a teaching or motivation to combine the references is essential. *In re Fine*, 337 F.2d 1071, 1075 (Fed. Cir. 1988). In fact, the Court of Appeals for the Federal Circuit has stated that, "[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability -- the essence of hindsight." *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999). Although the evidence of a suggestion, teaching, or motivation to combine the references commonly comes from the prior art references themselves, the suggestion, teaching, or motivation can come from the knowledge of one of ordinary skill in the art or the nature of the problem to be solved. *Id.* In any event, the showing must be clear and particular and "[b]road conclusory statements regarding the teaching effect of multiple references, standing alone, are not 'evidence'." *Id.*

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Applicants initially submit that the DeMarcken '413 patent and the Waytena '770 patent cannot properly be combined since the references are from different and non-analogous fields of endeavor. In this regard, the DeMarcken '413 patent is directed to providing availability of airline seats, while the Waytena '770 patent is directed to assigning and managing patron reservations for distributed services (*e.g.*, amusement parks) and is not directed to travel resources, be they aircraft or otherwise. Thus, faced with the problem of having to determine the availability of a seat in the future based on current seat availability data, Applicants submit that one skilled in the art would look throughout the travel industry for a solution, but not the amusement park industry for a technique for determining the wait time for a particular ride.

Not only are the references from different fields, but the requisite motivation or suggestion to combine the DeMarcken '413 patent with the Waytena '770 patent is also otherwise lacking. In this regard, the DeMarcken '413 patent is premised on travel planning and predicting current availability of seats for an airline or for other modes of travel, while the Waytena '770 patent provides a system and method for assigning and managing patron reservations for distributed services, such as amusement parks, shows, restaurants, and sporting events. Thus, each of the DeMarcken '413 patent and the Waytena '770 patent is directed to solving a different problem, where the DeMarcken '413 patent is concerned with determining the availability of seats for travel, while the Waytena '770 patent is concerned with presenting a patron with a proposed reservation time and providing reservations in a virtual queue through a wireless network such that the patron is effectively "waiting in line" in the virtual queue without physically waiting at a particular attraction. As such, the Waytena '770 patent does not provide a solution for the problem addressed by the DeMarcken '413 patent of determining the likelihood that seats will currently be available and, instead, addresses a different problem of the wait time required to move through a line. Since seats are only available in instances in which there is no waiting line of any length, there is no motivation or suggestion to modify or supplement the seat availability predictor technique of the DeMarcken '413 patent with the technique for estimating a waiting time as disclosed by the Waytena '770 patent. For each of the forgoing reasons, there is no teaching or suggestion to combine the DeMarcken '413 patent with the Waytena '770 patent.

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In any event, even if the references were combined, independent Claims 1, 14, and 27 of the present application are patentably distinct from the cited references, taken either individually or in combination. The Examiner acknowledges that the DeMarcken '413 patent does not teach or suggest determining a probability that the candidate itinerary will remain available for booking for a period of time in the future based at least in part upon the current availability and historical availability information for the candidate itinerary, as recited in independent Claims 1, 14, and 27. However, the Examiner finds that this particular recitation is disclosed by the combination of the DeMarcken '413 patent with the Waytena '770 patent.

Applicants respectfully disagree that the combination of the DeMarcken '413 patent and the Waytena '770 patent teaches or suggests determining a probability that the candidate itinerary will remain available for booking for a period of time in the future based at least in part upon the current availability information and historical availability information for the candidate itinerary, as recited by independent Claims 1, 14, and 27. Although the Waytena '770 patent discloses estimating when an attraction will become available for purposes of making a reservation, Waytena does not teach or suggest determining a probability that the reservation will remain available for booking for a period of time in the future. Instead, Waytena is concerned with the exact opposite issue, that is, the unavailability of (or, in other words, the wait time for) an attraction. In addition, even though the Waytena '770 patent discloses that the application computer may provisionally store a reservation time in the virtual queue while the proposed time is forwarded to a patron's PCD for confirmation or rejection, Waytena does not teach or suggest determining a probability as to how long the reservation will remain available for booking in the future. In fact, there is no need to predict a probability that the reservation time will remain available for booking in the future, as the patron is given a fixed period of time to either accept or reject the proposed reservation time.

Moreover, in finding that it would be obvious to combine the DeMarcken '419 and Waytena '770 patents, the Examiner states that "the nature of predicting is done in order to provide a patron with accurate information in the future, not just the current time. If a traveler does know his/her plans ahead of time, by using a reliable predictor of the future, he/she will be able to make an informed decision on when to travel." Booking an itinerary certainly relates to a

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future activity, as reservations are typically made in advance of travel, however, the current availability of an itinerary is distinctly different from the period of time in the future that an itinerary will still be available for booking. The claimed invention provides travelers with the option of making an immediate purchase or deferring the decision to purchase based on a probability that the reservation will remain available for booking in the future. In this regard, the traveler is able to monitor the status of a candidate itinerary without purchasing or placing the itinerary on hold.

An example is illustrative of the distinction between the Waytena '770 and DeMarcken '413 patents and Claims 1, 14, and 27. Figure 2 of the present application demonstrates that the claimed invention provides for both obtaining current availability information and determining a probability that the candidate itinerary will remain available for booking for a period of time in the future. Figure 2 illustrates a candidate itinerary (200), as well as the percentage probabilities that the candidate itinerary will remain available after two days, four days, or seven days (220) from the date of receiving the candidate itinerary. For example, Figure 2 shows that there is a 30% probability that the candidate itinerary will remain available for two days. The DeMarcken '413 patent only discloses predicting current availability, while the Waytena '770 patent does not teach or suggest predicting probabilities that a candidate itinerary will remain open following a request, as Waytena only discloses predicting the wait time. In terms of the example, therefore, the DeMarcken '413 patent could provide a yes/no answer as to current availability, while the Waytena '770 patent would provide an indication as to when seats might become available on a flight that is currently full.

Therefore, the method, system, and computer-readable medium of independent Claims 1, 14, and 27, and those claims that depend therefrom, are not taught or suggested by the cited references, taken either individually or in combination, for at least the reasons described above. Thus, the rejection of Claims 1, 14, and 27 under 35 U.S.C. § 103(a) is also overcome.

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B. The Rejection of Claims 8, 21, and 34 under 35 U.S.C. § 103(a) is Overcome

The Official Action rejected Claims 8, 21, and 34 under 35 U.S.C. § 103(a) as being unpatentable over the DeMarcken '413 patent in view of the Waytena '770 patent. Based upon the amendments to independent Claims 8, 21, and 34 and comments below, Applicants respectfully submit that the rejection of Claims 8, 21, and 34 under 35 U.S.C. § 103(a) is overcome.

Independent Claims 8, 21, and 34 provide a method, system, and computer readable medium for increasing reliability of booking airline travel itineraries which Applicants submit are patentably distinct from the DeMarcken '413 and Waytena '770 patents. The Official Action continues to reject these claims, but did agree that DeMarcken does not disclose a situation table that is created based on availability information from two data sources. However, the Official Action cites the Waytena '770 patent as teaching "that a multitude of data sources can be used to obtain data." Although the Waytena '770 patent discloses that the central attraction control interface may change (i.e., update) data describing any of the individual attractions, such as hours of operation, reservation schedules, attraction information, etc., this data is not related to the availability of the candidate itinerary. The data updated in Waytena is only directed to descriptive information related to the attraction and provides no insight into the availability of a candidate itinerary.

In order to further clarify this significant distinction, independent Claims 8, 21, and 34 have now been amended to include the recitation that the situation table that assists in determining if the availability information should be updated is created based upon availability data for the candidate itinerary from each of at least two data sources. In one embodiment of the present invention, the two data sources include Availability Status model (AVS) and Direct Connect Availability (DCA) availability information. Thus, to create a situation table, both AVS availability information, which is periodically updated and relatively less expensive to utilize, and DCA availability information, which is updated in real-time and relatively more expensive to utilize, are obtained and compared for each candidate itinerary to determine any differences in the availability information.

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With respect to the dependent claims, the Examiner notes that the DeMarcken '413 patent does not teach or suggest obtaining availability information from at least two data sources based on the candidate itinerary, determining a difference between the availability information from the at least two sources, and storing in the situation table an indication that the availability information should be updated prior to booking, wherein the indication is based on the difference, as recited by dependent Claims 11, 24, and 37. Similarly, the Waytena '770 patent does not teach or suggest obtaining availability information from two data sources, let alone determining a difference between the information and storing an indication in a situation table to update the availability information.

In addition, the Examiner acknowledges that the DeMarcken '413 patent does not teach or suggest storing in the situation table an indication that the availability information should be updated prior to booking but only when the candidate itinerary is not rendered irrelevant by fare rules, as recited by dependent Claims 12, 25, and 38, or when a difference between the availability information from the at least two sources exceeds an error threshold, as recited by dependent Claims 13, 26, and 39. The Waytena '770 patent also nowhere teaches or suggests fare rules or an error threshold, let alone storing an indication that availability information should be updated only when the candidate itinerary is not irrelevant due to fare rules or when a difference from the two data sources do not exceed an error threshold.

Therefore, neither the DeMarcken '413 or Waytena '770 patents, alone or in combination, teach or suggest creating a situation table based on availability information for the candidate itinerary from each of at least two data sources, as now recited by amended independent Claims 8, 21, and 34. As such, amended independent Claims 8, 21, and 34, and those claims that depend therefrom, are patentably distinguishable over the DeMarcken '413 and Waytena '770 patents and are in condition for allowance. Furthermore, dependent Claims 11-13, 24-26, and 37-39 are also patentably distinguishable from the cited references for at least those additional reasons described above.

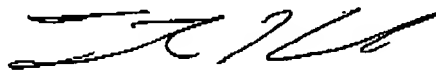
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CONCLUSION

In view of the amended claims and remarks presented above, it is respectfully submitted that all of the present claims of the present application are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

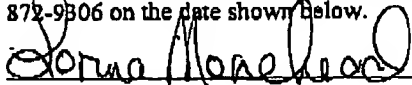


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November 22, 2004
Date

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